receiving ultrasound signals [that are] scattered by said microbubbles, said ultrasound system being equipped with analog or digital filters extracting subharmonic signals of the ½ order (at half the transmit frequency) [received by said ultrasound system include at least one of the group of subharmonic and ultraharmonic signals] from said scattered signals from said microbubbles; and

measuring[ement of the] subharmonic signal amplitude [of at least one of the group of subharmonic and ultraharmonic signals] to estimate said pressure [changes] in said mammal according to a calibrated correlation curve of hydrostatic pressure versus the subharmonic signal amplitude.

2. (ONCE AMENDED) A system for measuring pressure [changes] in a mammal, comprising:

an ultrasound system with analog or digital filtering for detecting microbubbles, said ultrasound system capable of transmitting at least one detection[ng] signal and capable of receiving detection signals that are scattered and returned by said microbubbles, wherein said detection signals received by said ultrasound system include at least one of the group of subharmonic and ultraharmonic signals of the ½ order (at half the transmit frequency) from said scattered signals from said microbubbles;

said ultrasound system having at least one single-element transducer for pressure estimation according to a calibrated correlation curve of hydrostatic pressure versus the subharmonic signal amplitude.

3. (ONCE AMENDED) A system for measuring pressure [changes] in a mammal, comprising:

an ultrasound system with analog or digital filtering for imaging microbubbles, said ultrasound system capable of transmitting at least one detection[ng] signal and capable of receiving detection signals that are scattered and returned by said microbubbles, wherein said detection signals received by said ultrasound system include at least one of the group of subharmonic and ultraharmonic signals of the ½ order (at half the transmit frequency) from said scattered signals from said microbubbles;

said ultrasound system having one of the group of a phase transducer array with a capability of beam steering, a linear transducer array with at least one transducer, or a curved transducer array to measure subharmonic signal amplitude to estimate said pressure in said mammal according to a calibrated correlation curve of hydrostatic pressure versus the subharmonic signal amplitude.

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4. (ONCE AMENDED) An ultrasound contrast agent used for pressure estimation with said ultrasound contrast agent containing microbubbles, comprising an ultrasound contrast agent having [wherein said] microbubbles [have] with a narrow band of size distribution and [are stable] stability when circulating in vivo within a mammal bloodstream such that size uniformity of said microbubbles is maintained during circulation and said microbubbles are substantially compressible such that said microbubbles change significantly in size in response to changes in pressure and said response of said microbubbles to changes in pressure maximizes the intensity of at least one of the group of subharmonic and ultraharmonic signals of the ½ order (at half the transmit frequency) scattered from said microbubbles.

5. (ONCE AMENDED) A method of using an ultrasound contrast agent containing microbubbles to estimate pressure [change] in a mammal, comprising:

[application] administration of said microbubbles to said mammal in vivo, wherein said microbubbles have a narrow band of size distribution and are substantially compressible such that said microbubbles change significantly in size in response to changes in pressure;

application of an ultrasound system to said contrast agent, said ultrasound system transmitting at least one ultrasound detection signal and receiving ultrasound signals scattered by said microbubbles and said ultrasound system extracting signals of the ½ order (at half the transmit frequency) from said scattered signals from said microbubbles; and

measurement of shifts in resonance frequency of one of the group of subharmonic or ultraharmonic signals received by [an] said ultrasound system having analog or digital filtering for detection of said microbubbles, wherein said

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